

Appl. No. 10/665,169
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Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

- 1-6. (canceled)
7. (currently amended) A packaged diaper, comprising:
a diaper[,] having a first, nominal configuration characterized by a nominal length, width and thickness height, and having a second, reduced configuration characterized by a reduced length and width;
the reduced length being between about 2 inches to about 4 inches, the reduced width being between about 1.0 inch to about 2.5 inches, and the thickness height in the second, reduced configuration being between about 0.5 inches to about 1.5 inches; and
a restraint, in which the diaper is disposed and retained in the second, reduced configuration.
8. (original) The packaged diaper of claim 7, wherein the reduced length and width of the diaper are each less than about 1/2 of the nominal length and width, respectively, of the diaper.
9. (original) The packaged diaper of claim 7, wherein the reduced length of the diaper is less than about 1/3 of the nominal length of the diaper.
10. (original) The packaged diaper of claim 7, wherein the reduced length of the diaper is less than about 1/4 of the nominal length of the diaper.
11. (original) The packaged diaper of claim 7, wherein the diaper comprises a disposable diaper.
- 12-15. (canceled).
16. (currently amended) A packaged diaper, comprising:
a diaper, having a nominal, substantially rectangular shape, and a reduced, substantially cylindrical shape;
the reduced, substantially cylindrical shape having a diameter being between about 0.5 inches to about 1.5 inches and a length being between about 2 inches to about 4 inches; and

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a restraint, in which the diaper is disposed and retained in the reduced, substantially cylindrical shape, the restraint being configured to be openable to release the diaper, ~~which thereafter returns~~ for returning to its nominal shape.

17. (original) The packaged diaper of claim 16, wherein the diaper comprises a disposable diaper.
- 18-41. (canceled)
42. (new) A packaged diaper comprising:
- (a) a sealed substantially air impermeable encasement completely enclosing an interior space; and
 - (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (c) wherein said compressible absorbent diaper is unsoiled;
 - (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;
 - (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging;
 - (f) wherein said compressible absorbent diaper is the only diaper disposed within said interior of said sealed substantially air impermeable encasement; and
 - (g) wherein said sealed substantially air impermeable encasement maintains at least a partial vacuum state in said interior space, and wherein said encasement is sealed after evacuation of air and creation of the at least partial vacuum state within said interior space of said encasement.
43. (new) The packaged diaper of claim 42, wherein a pressure on the order of millibars (mbar) within said interior space of said sealed substantially air impermeable encasement constitutes the at least partial vacuum state in said interior space of said encasement.
44. (new) A packaged diaper comprising:
- (a) a sealed substantially air impermeable encasement completely enclosing an interior space; and

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- (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (c) wherein said compressible absorbent diaper is unsoiled;
 - (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;
 - (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging;
 - (f) wherein said compressible absorbent diaper is the only diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (g) wherein said sealed substantially air impermeable encasement maintains at least a partial vacuum state in said interior space, and wherein said encasement is sealed after evacuation of air and creation of the at least partial vacuum state within said interior space of said encasement; and
 - (h) wherein a pressure within said interior space of said sealed substantially air impermeable encasement is on the order of millibars (mbar)
45. (new) The packaged diaper of claim 44, wherein said pressure is less than 10 mbar.
46. (new) The packaged diaper of claim 44, wherein said pressure is less than 20 mbar.
47. (new) The packaged diaper of claim 44, wherein said pressure is between about 5 mbar and about 1 mbar.
48. (new) A packaged diaper, comprising:
- (a) a sealed substantially air impermeable encasement completely enclosing an interior space; and
 - (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (c) wherein said compressible absorbent diaper is unsoiled;
 - (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;

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- (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging;
 - (f) wherein said compressible absorbent diaper is the only diaper disposed within said interior of said sealed substantially air impermeable encasement;
 - (g) wherein a pressure differential across said sealed substantially air impermeable encasement acts upon said encasement to maintain the diaper in its reduced volume state, and
 - (h) wherein said reduced volume of said diaper that is maintained by the pressure differential is less than an intermediate volume of said diaper when disposed within the interior of said encasement at the time of sealing of said encasement.
49. (new) The packaged diaper of claim 48, wherein the pressure differential across said encasement comprises the difference between the pressure within said interior space of said encasement and general ambient atmospheric pressure at the elevation of the packaged diaper.
50. (new) A packaged diaper, comprising:
- (a) a sealed substantially air impermeable encasement completely enclosing an interior space; and
 - (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (c) wherein said compressible absorbent diaper is unsoiled;
 - (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;
 - (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging;
 - (f) wherein said compressible absorbent diaper is the only diaper disposed within the interior of said sealed substantially air impermeable encasement;

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- (g) wherein a pressure differential across said sealed substantially air impermeable encasement acts upon said encasement to maintain the diaper in its reduced volume state; and
 - (h) wherein said diaper disposed within said interior space of said sealed substantially air impermeable encasement includes a configuration that is different from a nominal configuration by at least a lengthwise fold in said diaper.
51. (new) A packaged diaper that is vacuum-packed, comprising:
- (a) a sealed substantially air impermeable encasement completely enclosing an interior space;
 - (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (c) wherein said compressible absorbent diaper is unsoiled;
 - (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;
 - (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging; and
 - (f) wherein said compressible absorbent diaper is the only diaper disposed within the interior of said sealed substantially air impermeable encasement.
52. (new) The packaged diaper of claim 51, wherein said vacuum-packed diaper further comprises a tab that facilitates opening of said sealed substantially air impermeable encasement for release of said compressible absorbent diapers therefrom.
53. (new) The packaged diaper of claim 51, wherein the vacuum-packed diaper has a size no larger than a conventional cigarette package.
54. (new) The packaged diaper of claim 51, wherein the vacuum-packed diaper has three dimensions consisting of a width, length, and height, and the sum of any two of said dimensions is less than 10 cm with no single dimension exceeding 10 cm.
55. (new) The packaged diaper of claim 51, wherein said sealed substantially air impermeable encasement is formed of a flexible material.

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56. (new) The packaged diaper of claim 51, wherein said compressible absorbent diaper disposed within the interior of said sealed substantially air impermeable encasement comprises a substantially cylindrical shape.
57. (new) The packaged diaper of claim 56, wherein said compressible absorbent diaper is rolled defining said substantially cylindrical shape.
58. (new) The packaged diaper of claim 51, wherein said compressible absorbent diaper disposed within the interior of said sealed substantially air impermeable encasement comprises a substantially rectangular shape defining a length, a width, and a thickness.
59. (new) The packaged diaper of claim 58, wherein said thickness is less than each of said length and said width, and wherein said compressible absorbent diaper is vacuum-packed within said sealed substantially air impermeable encasement reducing said thickness.
60. (new) The packaged diaper of claim 58, wherein said compressible absorbent diaper is folded at least once along a dimension defining said length.
61. (new) The packaged diaper of claim 58, wherein said compressible absorbent diaper is folded at least twice along a dimension defining said length.
62. (new) The packaged diaper of claim 51, wherein said diaper disposed within said interior space of said encasement has a foldedly reduced length and width each of which is less than about 1/2 of the nominal length and width, respectively, of said diaper.
63. (new) The packaged diaper of claim 51, wherein said diaper disposed within said interior space of said encasement has a foldedly reduced length which is less than about 1/3 of the nominal length of said diaper.
64. (new) The packaged diaper of claim 51, wherein said diaper disposed within said interior space of said encasement has a foldedly reduced length which is less than about 1/4 of the nominal length of said diaper.
65. (new) A packaged diaper comprising:
 - (a) a sealed substantially air impermeable encasement completely enclosing an interior space; and
 - (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (c) wherein said compressible absorbent diaper is unsoiled;

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- (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;
 - (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging;
 - (f) wherein said packaged diaper is pocket sized; and
 - (g) wherein said sealed substantially air impermeable encasement maintains at least a partial vacuum state in said interior space, and wherein said encasement is sealed after evacuation of air and creation of the at least partial vacuum state within said interior space of said encasement.
66. The packaged diaper of claim 65, wherein a pressure on the order of millibars (mbar) within said interior space of said sealed substantially air impermeable encasement constitutes the at least partial vacuum state in said interior space of said encasement.
67. (new) A packaged diaper comprising:
- (a) a sealed substantially air impermeable encasement completely enclosing an interior space; and
 - (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (c) wherein said compressible absorbent diaper is unsoiled;
 - (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;
 - (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging;
 - (f) wherein said packaged diaper is pocket sized;
 - (g) wherein said sealed substantially air impermeable encasement maintains at least a partial vacuum state in said interior space, and wherein said encasement is sealed

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- after evacuation of air and creation of the at least partial vacuum state within said interior space of said encasement; and
- (h) wherein a pressure within said interior space of said sealed substantially air impermeable encasement is on the order of millibars (mbar).
68. (new) The packaged diaper of claim 67, wherein said pressure is less than 10 mbar.
69. (new) The packaged diaper of claim 67, wherein said pressure is less than 20 mbar.
70. (new) The packaged diaper of claim 67, wherein said pressure is between about 5 mbar and about 1 mbar.
71. (new) A packaged diaper comprising
- (a) a sealed substantially air impermeable encasement completely enclosing an interior space; and
- (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
- (c) wherein said compressible absorbent diaper is unsoiled;
- (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;
- (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging;
- (f) wherein said packaged diaper is pocket sized;
- (g) wherein a pressure differential across said sealed substantially air impermeable encasement acts upon said encasement to maintain the diaper in its reduced volume state, and
- (h) wherein said reduced volume of said diaper that is maintained by the pressure differential is less than an intermediate volume of said diaper when disposed within the interior of said encasement at the time of sealing of said encasement.
72. (new) The packaged diaper of claim 71, wherein the pressure differential across said encasement comprises the difference between the pressure within said interior space of

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said encasement and general ambient atmospheric pressure at the elevation of the packaged diaper.

73. (new) A packaged diaper, comprising:
- (a) a sealed substantially air impermeable encasement completely enclosing an interior space; and
 - (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (c) wherein said compressible absorbent diaper is unsoiled;
 - (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;
 - (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging;
 - (f) wherein a pressure differential across said sealed substantially air impermeable encasement acts upon said encasement to maintain the diaper in its reduced volume state;
 - (g) wherein said diaper disposed within said interior space of said sealed substantially air impermeable encasement includes a configuration that is different from a nominal configuration by at least a lengthwise fold in said diaper; and
 - (h) wherein said packaged diaper is pocket sized.
74. (new) A packaged diaper that is vacuum-packed, comprising:
- (a) a sealed substantially air impermeable encasement completely enclosing an interior space;
 - (b) a compressible absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement;
 - (c) wherein said compressible absorbent diaper is unsoiled;
 - (d) wherein, prior to packaging, said compressible absorbent diaper has a nominal volume when unrestrained;

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- (e) wherein, when disposed within the interior of said sealed substantially air impermeable encasement, said compressible absorbent diaper has a reduced volume that is less than the nominal volume of said compressible absorbent diaper when unrestrained prior to packaging; and
 - (f) wherein said packaged diaper is pocket sized.
75. (new) The packaged diaper of claim 74, wherein said encasement is substantially impermeable to moisture.